

Appl. No. 09/689,048
Response date January 27, 2004
Reply to Office Action of October 27, 2003

Remarks

Applicants acknowledge receipt of the Office Action mailed October 27, 2003
The following remarks are submitted in response to the Office Action mailed October 27, 2003.

Claims 1-10, 16-20 and 27 stand rejected as being unpatentable over U.S. Patent no. 5,679,042 to Varona et al. (hereinafter Varona) in view of U.S. Patent no. 5,853,635 to Morell et al. (hereinafter Morell). Claims 1-10, 16-20 and 27 are directed to a nonwoven web comprising a first segment comprising first continuous filaments and a second segment comprising second continuous filaments wherein the first segment and the second segment extend adjacent one another and abut one another and wherein the second segment comprises second continuous filaments that differ from the first continuous filaments in cross-sectional shape, cross-sectional configuration, crimp level, hydrophobicity, addition or level of internal treatments or additives, tensile strength or elasticity. Varona describes a method of forming a nonwoven fiber web having a pore size gradient by forming a nonwoven web from thermally responsive fibers into zones of fibers varying in denier or composition and then heat shrinking the fibers. The fibers in the different zones shrink to varying degrees depending on the denier or the composition of the fibers producing a nonwoven web having a pore size gradient between the zones. Varona does not disclose, teach or suggest varying the cross-sectional shape, the cross-sectional configuration, the crimp level, the hydrophobicity, the addition or level of internal treatments or additives, the tensile strength or the elasticity between the zones.

Morell also fails to disclose, teach or suggest creating adjacent zones of fibers that vary in cross-sectional shape, cross-sectional configuration, crimp level, addition or level of internal treatments or additives, tensile strength or elasticity. Generally, Morell describes a method of forming a heteroconstituent nonwoven web by including a mixture of two or more filament types into the same web (see Abstract). Although Morell suggests that the filament types can vary, for example, as to polymer composition, additive loadings, fiber size, fiber shape and/or degree of crimping (see Abstract), Morell does not suggest placing different filaments in different adjacent zones. The webs described by Morell include the two or more different fibers as different layers in a web or blended into one layer in a web (see col. 6, lines 10-17 and 49-53; col. 7, lines 42-46 and 58-61; col. 8, lines 14-20 and 42-44; and col. 2, line 20-24) and not adjacent zones. Nowhere does Morell

Appl. No. 09/689,048
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disclose, teach or suggest including fibers of different types in two zones that extend adjacent one another in the machine direction or the desirability of including fibers of different types in adjacent zones. Applicants respectfully submit that there is no motivation to do so in the cited references and that the suggestion to combine the references came from the present patent application. The references must be viewed without the benefit of impermissible hindsight. There must be some suggestion or motivation to combine reference teachings. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. (MPEP § 2143 quoting *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991)).

Varona describes forming a web from of fibers of different polymer composition or fiber denier then heating the fibers of varying composition or denier so that the fibers shrink in varying amounts, according to their denier or composition, to create a web having zones of varying pore sizes. Morell does not disclose, teach or suggest varying cross-sectional shape, cross-sectional configuration, crimp level, addition or level of internal treatments or additives, tensile strength or elasticity of fibers to vary the heat shrinkability of the fibers or any advantages of creating zones of differing fibers. Specifically, Morell teaches an apparatus and a method of making a nonwoven web of two or more types of fibers that are mixed together to form a single layer or brought together as separate layers (col. 6, lines 49-53) using a dual or split spinpack process. Morell teaches an apparatus and a process that may reduce costs, improve control of the air used to spin the fibers, improve uniformity or improve efficiency (col. 1, lines 46-54) that provides the advantages of multibank production in a single configuration that allows the use of a single central channel for both fluid flow for both bundles of fibers (col. 6, lines 40-43). Such an arrangement produces either a single layer of a blend of at least two different fibers or produces a web or laminate that includes at least two layers of the two different fibers. The arrangement does not produce or even suggest a layer of two zones of fibers that abut one another and extend in the machine direction. Morell does not disclose, teach or suggest varying properties in zones that extend adjacent one another.

All of the teachings of the prior art references must be considered to the extent that they are in analogous art (see MPEP § 2143.01, page 2100-16, col. 1). Applicants submit that the two references are in an analogous art and, therefore, each reference should be considered in its entirety. If the references are considered in their entireties, Applicants respectfully submit that the references do not suggest the desirability of making the

Appl. No. 09/689,048
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combination of the present invention as suggested by the Examiner. Neither of the references suggest a reason for varying cross-sectional shape, cross-sectional configuration, crimp level, addition or level of internal treatments or additives, tensile strength or elasticity of fibers in adjacent zones that extend in the machine direction. Accordingly, it would not have been obvious to person of ordinary skill in the art to use any of the elastomeric materials described by Morell to make fibers in any of the structures described by Varona as the Examiner suggests in the Office Action mailed October 27, 2003. Applicants further submit that it would not have been obvious to person of ordinary skill in the art to make a nonwoven fabric having zones of varying elasticity, cross-sectional shape, cross-sectional configuration, crimp level, hydrophobicity, addition or level of internal treatments or additives, or tensile strength as described and claimed in the present patent application in view of Varona, in view of Morell or in view of Varona and Morell combined. Accordingly, Applicants respectfully request that the pending rejection of Claims 1-10, 16-20 and 27 be withdrawn.

Claim 18 also stands rejected as being unpatentable over to Varona in view of Morell. Claim 18 is directed to a nonwoven web comprising a first segment comprising first continuous filaments and a second segment comprising second continuous filaments wherein the first segment and the second segment extend adjacent one another and abut one another and wherein the second segment comprises second continuous filaments that differ from the first continuous filaments in cross-sectional shape, cross-sectional configuration, crimp level, hydrophobicity, addition or level of internal treatments or additives, tensile strength or elasticity as described above that is not exposed to a heat source to shrink the fibers. Varona describes a method of forming a nonwoven fiber web having a pore size gradient by forming a nonwoven web from thermally responsive fibers into zones of fibers varying in denier or composition and then heat shrinking the fibers. Morell does not disclose, teach or suggest not heat shrinking the nonwoven webs disclosed by Varona or a reason to do so. Accordingly, Applicants respectfully request that the pending rejection of Claim 18 be withdrawn.

Conclusion


Applicant respectfully submits that Claims 1-10, 16-20 and 27 are in condition of allowance and request that the pending rejections are withdrawn and a Notice of

Appl. No. 09/689,048
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Allowance issued. Should any questions arise with regard to this application the Examiner is encouraged to contact the undersigned at (770)-587-8620.

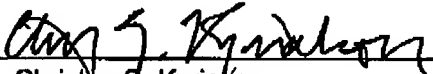
In the event that the fees of any of these items are incorrect or any other fee may be necessary to keep the present application pending and to enter the amendment contained herein, please charge any fee or credit to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

Respectfully submitted,

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CERTIFICATE OF FACSIMILE

I, Christos S. Kyriakou, hereby certify that on January 27, 2004, this document is being sent to the Patent and Trademark Office via facsimile addressed to: Examiner William P. Watkins, III at facsimile number: 703-872-9310.

By: 
Christos S. Kyriakou